

IN THE CLAIMS

Please amend the claims as follows:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A ~~quenching~~ method for ~~performing~~ quenching a metallic material, comprising while adjusting the pressure on the surface of the a quenching oil to a reduced pressure condition having a lower limit of 13 kPa, by using wherein said quenching oil according to any of claims 1 to 4 comprises (A) a base oil having a kinematic viscosity at 40 °C of 40 mm²/s or more and (B) a vapor blanket breaking agent.

6. (Cancelled)

7. (New) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.5 or less, in the test of heat treating oils in JIS K 2242.

8. (New) The method according to claim 5, wherein the kinematic viscosity at 40 °C of said base oil is 40 to 300 mm²/s.

9. (New) The method according to claim 5, wherein the quenching oil comprises said vapor blanket breaking agent in an amount of 5 % or more by mass based on said quenching oil.

10. (New) The method according to claim 5, wherein the pressure on the surface of the quenching oil is adjusted to 15-70 kPa.

11. (New) The method according to claim 5, comprising adjusting the pressure on the surface of the quenching oil to a reduced pressure condition having a lower limit of 80 kPa.

12. (New) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.5 or less, in the test of heat treating oils in JIS K 2242, the kinematic viscosity at 40 °C of said base oil is 40 to 300 mm²/s, the quenching oil comprises said vapor blanket breaking agent in an amount of 5 % or more by mass based on said quenching oil, and the pressure on the surface of the quenching oil is adjusted to 15-70 kPa.

13. (New) The method according to claim 7, comprising adjusting the pressure on the surface of the quenching oil to a reduced pressure condition having a lower limit of 80 kPa.

14. (New) The method according to claim 9, wherein the quenching oil comprises said vapor blanket breaking agent in an amount of 30 % or less by mass based on said quenching oil.

15. (New) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.0 or less, in the test of heat treating oils in JIS K 2242.

16. (New) The method according to claim 5, wherein said base oil has a flash point of 230 °C or more.

17. (New) The method according to claim 5, wherein said base oil comprises 5% or less by mass of a light cut whose boiling point is below 400 °C.

18. (New) The method according to claim 5, wherein said base oil comprises mineral oil.

19. (New) The method according to claim 5, wherein said metallic material is steel.

20. (New) The method according to claim 5, wherein quenching is performed in a vacuum furnace.

21. (New) The method according to claim 5, wherein quenching is performed in a vacuum carburizing furnace.

22. (New) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.0 or less, in the test of heat treating oils in JIS K 2242, the kinematic viscosity at 40 °C of said base oil is 40 to 300 mm²/s, the quenching oil comprises said vapor blanket breaking agent in an amount of 5 % or more and 30 % or less by mass based on said quenching oil, the pressure on the surface of the quenching oil is reduced to a pressure condition having a lower limit of 80 kPa, and wherein said base oil has a flash point of 230 °C or more and comprises 5% or less by mass of a light cut whose boiling point is below 400 °C.